Remarks

In response to the non-final Office Action mailed August 5, 2005, the Applicants respectfully request reconsideration of the rejections and that the case pass to issue in light of the amendments above and the remarks below. By this paper, claims 21-22 have been amended, no other claims have been amended or cancelled, such that claims 1-22 are now pending.

The Examiner has set for the following rejections: (1) the title is objected to as being non-descriptive; and (2) claims 1-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by USPN 6,313,546 to Nishimura (hereinafter the Nishimura patent).

Objection to Title

The Applicants respectfully submit the title is descriptive of the claim invention. The Examiner is invited to provide an further suggestions to better describe the claimed invention, however, the Applicants are claiming controlling energy transfer from a high voltage bus to a low voltage bus in a hybrid electric vehicle, as recited in the title as presently described.

Rejection of Claims 1-20 over the Nishimura Patent

Each pending independent claim (1,10, and 19) includes limitations directed towards controlling energy flow to a low voltage bus during prestart. The Nishimura patent fails to disclose the prestart operation. As such, the Applicants submit that independent claims 1, 10, and 19, and the dependent claims that depend therefrom and include all the limitations thereof, are patentable and non-obvious over the Nishimura patent.

A prestart requires charging a high voltage bus prior to closing contactors used to electrically connect a high voltage energy source to an electrically operable driving element

(e.g. motor, generator, etc.). This is done to prevent instantaneous shorts from occurring at the time of closing the contactors. The Nishimura patent fails to provide any feature to support prestarting. In the Nishimura patent, closing of a switch (14) used to control discharge of a high voltage battery (15) to a high voltage bus (10) cannot be considered as a prestart because there is no precharging of the high voltage bus prior to closing the switch (14).

As such, since the Nishimura patent fails to disclose a prestart, it cannot teach controlling energy flow to a low voltage bus during prestart. Accordingly, the Applicants submit that independent claims 1, 10, and 19, and the dependent claims that depend therefrom and include all the limitations thereof, are patentable and non-obvious over the Nishimura patent.

Notwithstanding the foregoing, the Examiner is respectfully requested to reconsider the rejection to claim 19 and to consider claim 22, which both relate to a precharging device. The precharging device is used to precharge the high voltage bus. The precharging devices is used to transfer energy from a high voltage energy source connected to the high voltage bus without requiring closing of contactors used to connect the high voltage energy source to the high voltage bus. The Nishimura patent fails to disclose any such feature.

Conclusion

In view of the foregoing, the Examiner is respectfully requested to reconsider the rejections and to pass this case to issue. Enclosed please find a check in the amount of $120.00 for the one month extension of time. The $100 fee for the two additional dependent claims, are to be charged to Ford Global Technologies LLC Deposit Account No. 06-1510. The Examiner is invited to contact the undersigned if it would further prosecution of this case to issue.

Respectfully submitted,

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By_____

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